

REMARKS

Claims 1-30 and 32-36 were pending in this Application as of the Office Action of January 21, 2009. Claims 1, 22, and 30 are amended with this Response. The Examiner's objections and rejections will now be respectfully addressed in turn.

Objections to the claims

Claim 30 has been objected to for alleged informalities. In Response, Applicant respectfully amends claim 30.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-15, 18-20, and 32-36 are rejected under 35 U.S.C. 102(b) as being obvious over United States Publication No. 2003/0231607 to Scanlon in view of United States Publication No. 2003/028685 to Mahany. Applicant respectfully traverses this rejection.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art and that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references, and some expectation of success in making the suggested modification or combination. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Applicant's claim 1 has been amended to recite *inter alia*,

“transmitting a signal from a transmitter to a receiver at a time indicated by a previous signal transmitted from the transmitter and received by the receiver, the

transmitter signal including a message frame having a message part indicative of a time of transmission for a later signal;

registering by the at least one receiver the message part indicative of the time of transmission for the later signal; and

facilitating a transition of one of the at least one transmitter, the at least one receiver or both the transmitter and the receiver from and into a power saving state when no signal is being conveyed,” and

Applicant’s claim 22 has been similarly amended to recite *inter alia*,

at least one transmitter configured to be able to include a message part indicative of a time of transmission for a later signal when transmitting a transmitter signal at a time indicated by a previous signal transmitted from the transmitter and received by the receiver;

at least one receiver including control means for performing a time control in dependence on the message part indicative of the time of transmission for the later signal; and

means for facilitating a transition of one of the at least one transmitter, the at least one receiver or both the transmitter and the receiver from a power saving state, into the power saving state, or from and into the power saving state in dependence on the message part indicative of the time of transmission for the later signal, said means being configured to facilitate when no signal is being received

Neither Scanlon nor Mahany, taken alone or in combination, teach transmitting a signal from a transmitter to a receiver at a time indicated by a previous signal transmitted from the transmitter and received by the receiver, registering by the at least one receiver the message part indicative of the time of transmission for the later signal, or facilitating a transition of one of the at least one transmitter, the at least one receiver or both the transmitter and the receiver from and into a power saving state when no signal is being

conveyed.

On the contrary, referring first to Scanlon, Figure 5 illustrates one polling cycle of a MAC protocol communication (please see paragraphs [0024] and [0025]), wherein a number of pairs 40 of slots are allocated for communication between a master and a slave. The communication first occurs via a slot for transmission from the master to the slave, and thereafter occurs via a slot for transmission from the slave to the master. The polling cycle of figure 5 is initiated by a Registration Beacon slot 42', 42, followed by a CSMA contention slot 44. The Registration Beacon slot contains information regarding identification of the master and slot scheduling data, which comprises a list of registered slave identities as well as respective next slot pointers (i.e. the pair of slots 40 in the polling cycle) where communication takes place between the master and the respective slave. Thus, in order for the communication to be successful it is respectively asserted that a slave, which participates in the communication, must be able to receive communication from at least the Registration Beacon slot, and be able to communicate at the pair of slots, which the slave has been informed of via the Registration Beacon slot. Furthermore, it is apparent that each slave has to receive or listen to communication from the Registration Beacon slot for each and every polling *cycle*.

Further, the above-mentioned CSMA contention slot 44 is designated for slave devices that are not registered within the wireless network (i.e. unsynchronized slaves), which request service from the master, and for which successful requests will be included in the next Registration Beacon slot (please see paragraphs [0027] and [0029]). Scanlon is therefore particularly addressing the problem of synchronizing a new or an unsynchronized slave with the network.

For this purpose Scanlon teaches the packets from the master to the slave devices to be of the form shown in fig. 3, with the packets from the slave devices to the master being of the form shown in fig. 4 (please see paragraph [0022]). Each of these packets contains a

master/slave-bit indicating whether the packet is from a master or a slave. Further, the master packet contains within the header a resynchronisation pointer (RP) indicating the number of remaining slots before the transmission of the beacon slot 42 (please see fig. 5). Thus, as explained in paragraphs [0030] and [0031] a new or unsynchronized slave can activate its receiver and listen to any master packet (indicated by the master/slave-bit), from which the RP can be extracted. The slave can then enter a low-power sleep-mode until the registration beacon, where it can regain synchronization or, if it is a new slave, can request service during the next slot (i.e. the CSMA contention slot 44).

Further, the header contains a Next Slot Pointer (NSP) (please see paragraphs [0033] and [0035]), which indicates the number of slots that the slave must wait for the next master-to-slave packet. This allows a slave to communicate with the master, for example, two times within a superframe. However, the slave will still need to listen during each Registration Beacon slot, where the next allocated slot for the slave will be indicated (please see the last four lines of paragraph [0035] and the last six lines of paragraph [0036]).

However, as the superframes *are transmitted cyclically*, synchronization must be performed repeatedly and furthermore, the receivers of the slaves must be turned on for *each* registration beacon, even in cases where there is no need to transmit to or from the slave in question during a specific superframe.

Accordingly, since Scanlon teaches cyclical transmission, repeated synchronization, and slave receivers that must be turned on for each registration beacon, Scanlon does not teach transmission *at a time indicated by the previous signal*, registration of the transmission being *indicative of the time of transmission of the later signal*, and transition of the transmitter and/or receiver into a power saving state *when no signal is being conveyed*, as is required by Applicant's claims.

For at least the above reasons, Scanlon does not teach every element of Applicant's claims. Furthermore, since Mahany also teaches a method that also implements synchronization (please see paragraph [0061]), wherein the slave device has to monitor idle sense messages from the master in order to determine whether service is required or not, Mahany does not remedy the above discussed deficiencies of Scanlon.

For at least the above reasons, Applicant respectfully submits that the proposed combination of Scanlon and Mahany does not teach every element of Applicant's claims 1-15, 18-29, and 32-36.

In addition, since Scanlon relies on cyclically repeated frames with fixed lengths, which are divided into slots, the slave units have to be synchronized with the transmitter during each registration beacon and thus the slave units have to be in listening mode at least every time a each registration beacon is transmitted from the receiver (please see above). As such, the Scanlon slave unit receivers have to be active not only when receiving or transmitting the data packets, but also when **all** registration beacons are transmitted, thereby giving rise to an undesirable power consumption. Therefore, there is no motivation present in either Scanlon or Mahany (which also teaches synchronization) that would lead one of ordinary skill in the art to modify/combine these references such that power consumption/efficiency would be achieved, or any expectation of success in making such a modification/combination.

For at least the above reasons, Applicant respectfully submits that Applicant's claims 1-15, 18-29, and 32-36 are not obvious over the proposed combination of Scanlon and Mahany.

For at least the above reasons, Applicant respectfully submits that Applicant's claims 1-15, 18-29, and 32-36 are not obvious over the proposed combination of Scanlon and Mahany.

Claims 16 and 17 are also rejected under 35 U.S.C. 103(a) as being obvious over Scanlon in view of Mahany and United States Patent No. 6,570,857 to Haartsen. Applicant respectfully traverses.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art and that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references, and some expectation of success in making the suggested modification or combination. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Applicant respectfully notes that claims 16 and 17 depend from claim 1. As Haartsen does not remedy the deficiencies of Scanlon and Mahany (and is not used as such by the Examiner), for at least the above discussed reasons Applicant's claims 16 and 17 are not obvious over the proposed combination of Scanlon, Mahany, and Haartsen.

Conclusion

All of the objections and rejections are herein overcome. In view of the foregoing, it is respectfully submitted that the instant application is in condition for allowance. No new matter is added by way of the present Amendments and Remarks, as support is found throughout the original filed specification, claims and drawings. Prompt issuance of Notice of Allowance is respectfully requested.

The Examiner is invited to contact Applicant's attorney at the below listed phone number regarding this response or otherwise concerning the present application.

Applicant hereby petitions for any extension of time necessary under 37 C.F.R.

1.136(a) or 1.136(b) for entry and consideration of the present Reply.

If there are any charges due with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130 maintained by Applicant's attorneys.

Respectfully submitted,

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